

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

IN RE THE APPLICATION OF)
Paul Matthijs)
)
SERIAL NO.: 10/719,881)
)
FILED: November 21, 2003)
)
FOR: Method And Device For Avoiding Image)
Misinterpretation Due to Defective Pixels)
In A Matrix Display)

Exaaminer: Stephen G. Sherman
Art Unit: 2629
Customer No. 23644

REPLY BRIEF

Honorable Director of Patents and Trademarks
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

This reply brief is being filed in view of the Examiner's Answer of April 13, 2010. For ease of reference, that document will be referred to as "the answer" herein.

In point (10), pages 11 to 18 of the answer, the Examiner seeks to argue against the points raised by Applicant in the Appeal Brief. Applicant responds as follows.

1. Regarding the independent claims 16 and 25.

In the sentence bridging pages 11 and 12 of the answer, the Examiner states:

"As recited in the rejection, Aida does emphasize or warn for the presence of defective cells that are found in a matrix display (as admitted by Applicant in their argument), however, Aida just fails to teach that this emphasizing or warning is done on the same matrix display to which the defects are found, but rather displays them on a separate display." (emphasis added). The Examiner now admits explicitly (for the first time) that in Aida, the indication of defective cells is not done on the display having the defective cells, but on a separate display.

This difference between the method of claim 16 and the disclosure in Aida is essential. Indeed, while indicating defective cells of a display on a separate display having no defective cells may be rather straightforward, indicating the presence and location of defective cells on the display having the defective cells poses a problem, in particular when at the same time an image is shown by such a display (as in the present invention). Under such circumstances, it is not at all clear for an observer whether, for example, a black point on the screen is due to the image or to a defective cell. The remedy according to the invention is to give a particular indication (an emphasizing or warning) on the display for defective cells.

As to Examiner's remark "*as admitted by Applicant in their argument*", Applicant disagrees. In the Appeal Brief, Applicant did not admit that Aida emphasizes or warns for the presence of defective cells. On the contrary, on page 6, 2nd paragraph of the Appeal Brief it is clearly said "There is, however, no disclosure of a particular emphasizing or warning for the presence of defective cells...". In Aida, there is only an indication of the presence and location of a defective LED pellet.

In the paragraph bridging pages 12 and 13 of the answer, the Examiner further states:
"The Examiner notes that nowhere in the rejection did the Examiner state that Ohara discloses a display device in which the image content of the pixels of an image is adapted in order to emphasize or to warn for the presence of defective cells. Instead Aida was used to teach a display device in which defective cells are found and then emphasized or warned for, while Ohara was used to teach of providing information of defects and using this information to modulate the operation of the display when displaying the image and adapting the image content to emphasize or warn for the presence of said defects on the actual display of said image." (emphasis added).

This paragraph cannot be understood by Applicant because of the apparent contradiction relating to the content of Ohara, in particular with regard to the adaptation of the image content of the pixels of an image (which is clearly the same as the adaptation of the image content).

In closing the first paragraph on page 13 of the answer, the Examiner states:

“ One cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. ”

Applicant fully agrees that, when obviousness is assessed relative to more than one reference, the combination of the teachings of these references must be taken into account. However, at the same time, the differences between the teachings of each of the references and the claim at issue must be examined in order to have a clear understanding of the true differences between the teachings of the combination of references and the claims. The obviousness or nonobviousness of the claims can then be assessed by taking into account whatever the true differences may be.

The remark concerning the individual attacking of references is repeated several times by the Examiner (see e.g. the first sentence of page 14 of the answer) and each time the reaction of Applicant is the same.

When discussing on page 13 of the answer the factual inquiries set forth in Graham v. John Deere Co., the Examiner states:

“ With regards to inquiry 2, the examiner clearly determined the differences between the prior art and the claims at issue as illustrated by the “fails to statement” in the rejection. ”.

However, the final rejection did not contain a “fails to statement” in relation with Ohara but only a positive “disclose” statement (see the Final Office Action of September 30, 2009, page 6). This rather confusing “disclose” statement (e.g. by not mentioning that the misinterpretation of an image is due to defective cells in the matrix display device on which the image is displayed) leads unavoidably to incorrect conclusions in the rejection. Applicant notes that, in the answer, the Examiner does not even address the three essential differences between Ohara et al. and claim 16, as fully explained on page 8 of the Appeal Brief.

Discussing further Ohara, on page 14 of the answer, the Examiner states:

“On page 9 of the Appeal Brief the applicant then states “Only to be complete: in claim 16, the positions of the defective cells (of the display device) are represented in the displayed image (by adapting the image signals) while in Ohara, the position of the defective pixels (of another item: image sensing panel) are displayed in a particular display, without any processing of the

image signals." The examiner respectfully disagrees because in order to show anything on a display the operation of the display must be modulated and adapted in order for the pixels to collectively display an image, and as such any displaying in Ohara will require processing of image signals."

In the cited passage of the Appeal Brief, two of the differences between claim 16 and Ohara are highlighted: displaying the position of the defective cells within the image (in claim 16) or on a separate display (in Ohara) and the adaptation or processing of the image signals (not present in Ohara). The Examiner only addresses one of the differences: the adaptation or processing of the image signals. Ohara cannot disclose the adaptation or processing of the image signals because in Ohara the image is always displayed on a separate display (see the Appeal Brief, the paragraph bridging pages 7 and 8).

2. Regarding independent claims 23 and 31.

On pages 14 and 15 of the Answer, the Examiner seeks to discuss the points raised in the Appeal Brief concerning claims 23 and 31. According to the Examiner, the figures in the Aida and Ohara can be considered to be "copies" of an image.

Applicant cannot agree with such an interpretation. Indeed, the figures are purely representations of screen content and are not copies of images on a screen. In addition to that, according to claim 23, the copy comprises a plurality of pixels, while the drawings in Ohara and Aida are made of continuous lines and black squares (see Ohara, figures 13, 14A and 14B). Further, only the right-hand part of the figures 14A and B (the part of the figures marked "Displayed Image Screen") in Ohara represents a "displayed image screen" and none of these figures there is any indication of a defective cell. In Aida, the diode characteristic of each individual LED pellet is measured, one pellet after the other, and this can only be done by driving each pellet with a variable current or voltage (see the paragraph bridging pages 5 and 6 in Aida). An optical measurement of each LED pellet is performed by an optical sensor, which is moved over the LED matrix display. When a LED matrix display is used for displaying images, all LED elements are driven simultaneously and not successively. It is clear that by a driving scheme in which the LED pellets are driven one after the other and each LED pellet

with a variable current, it is impossible to obtain an image on the surface of the LED matrix display, not even an all black or an all white display, as is stated in the answer. Attention is also drawn to the fact that in the drawings of Aida, the display section (14 in figures 3 and 5) does not provide a representation of any image. Finally, claim 23 relates to a method for avoiding misinterpretation of **a copy of an image displayed on a matrix display device due to defective cells in the matrix display device**. Because none of the references disclose images, displayed on display devices having defective cells, the combination of Aida and Ohara surely cannot teach the copy of such an image.

The same applies, mutatis mutandis, in relation with the apparatus claim 31.

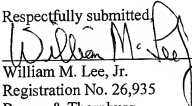
3. Regarding independent claim 32.

Because the reasoning in the answer in relation with claims 25 or 31 is flawed, the reasoning in the answer with regard to claim 32 is equally flawed.

4. Conclusion

Therefore, it is submitted that the Examiner's rejections are clearly in error, and should be reversed. Such action is therefore solicited.

June 11, 2010

Respectfully submitted,

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